

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 10 and 13-20 are pending. Claims 11 and 12 have been canceled. Claims has been amended. No new matter has been added.

The outstanding Office Action rejects Claims 10-20 under 35 U.S.C. § 103(a) as unpatentable over Inumiya, et al. (U.S. Patent No. 6,054,355, herein "Inumiya") in view of Chau, et al. (U.S. Patent No. 5,434,093, herein "Chau"); and rejects Claim 11 under 35 U.S.C § 112, first paragraph, as failing to comply with the enablement requirement.

Applicants and Applicants' representative appreciatively acknowledge the courtesy extended by Examiner Pompey by discussing the present application with the undersigned on April 28, 2004 and May 20, 2004. During the interview, the rejection of Claim 10 was discussed.

In regard to the rejection of Claim 11 under 35 U.S.C. § 112, first paragraph, Applicants respectfully traverse the rejection for the following reasons. Although Applicants have canceled Claim 11, Applicants have amended Claim 10 to incorporate all of the limitations of Claim 11. The Office Action asserts that "the second film is not formed until step (e), therefore you cannot remove a layer not formed initially."¹ However, step (e) recites a step of forming a second insulating film, not a second film. Step (e) recites that "[i]n step (a), said structure is formed by stacking a first film . . . and a second film . . ." In other words, the second film is formed in step (a), not step (e). Applicants submit that Claim 11 fully complies with the requirements of 35 U.S.C. § 112, first paragraph, and accordingly request withdrawal of the rejection.

Applicants have canceled Claims 11 and 12, rendering the rejection of these claims under 35 U.S.C. § 103(a) moot.

In regard to the rejection of Claims 10 and 13-20 under 35 U.S.C. § 103(a) as unpatentable over Inumiya in view of Chau, Applicants respectfully traverse the rejection for the following reasons.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), each of three requirements must be demonstrated. First, Inumiya in view of Chau must teach or suggest each and every element recited in the claim.² Second, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention.³ Third, a reasonable probability of success must exist with respect to the proposed combination relied upon in the rejection.⁴

Amended Claim 10 recites “a method for manufacturing a semiconductor device comprising the steps of (a) forming a structure on a main surface of a substrate in an area in which a gate electrode is formed later; (b) forming source/drain regions in said main surface of said substrate in an area in which said structure is not formed; (c) forming a first insulating film on said main surface of said substrate in an area in which said structure is not formed; (d) after said step (c); removing said structure; (e) forming a second insulating film on the construction obtained by said step (d) and etching said second insulating film by an anisotropic etching whose etching rate is higher in depth direction of said substrate to form sidewalls on sides of said first insulating film; (f) forming a gate insulating film composed of a third insulating film on said main surface of said substrate in an area in which said first insulting film and said

¹ Office Action, page 4.

² See MPEP § 2143.

sidewalls are not formed; and (g) forming said gate electrode to fill an inversely tapered recessed part formed by sides of said sidewalls and an upper surface of said gate insulating film, wherein, in said step (a), said structure is formed by stacking a first film composed of a material which is different from that of said second insulating film and a second film composed of a material which is different from that of said first insulating film in this order, and said step (d) comprises the steps of (d-1) between said step (c) and said step (e), removing said second film with said first film left unremoved, and (d-2) between said step (e) and said step (f), removing said first film by a wet etching.”

The outstanding Office Action asserts that Inumiya and Chau teach or suggest each and every element recited in Claim 10. Applicants respectfully disagree.

Inumiya does not teach or suggest at least a method for manufacturing a semiconductor device wherein, in step (a), the structure is formed by stacking a first film and a second film, and step (d) comprises the steps of (d-1) between step (c) and step (e), removing the second film with the first film left unremoved, and (d-2) between step (e) and step (f), removing the first film by a wet etching. In other words, in the method for manufacturing a semiconductor recited in amended Claim 10, a structure is formed by stacking a first film and a second film. The second film is removed before step (e) of forming sidewalls, and the first film is removed after the step (e). On the contrary, in Inumiya, a sidewall insulator film 111 is formed on the side wall of the dummy gate electrode pattern 108 before removing any part of the dummy gate electrode pattern 108.⁵ Then, the entire dummy electrode pattern is removed.⁶ Nowhere does Inumiya teach or suggest at least a method for manufacturing a semiconductor device wherein a structure is formed by stacking a first film and a second film and a step of removing the

³ See id.

⁴ See id.

structure comprises the steps of removing the second film with the first film left unremoved before forming sidewalls (in step (e)) and removing the first film by a wet etching after forming the sidewalls (in step (e)), as recited in Claim 10, as amended.

Chau does cure the deficiencies of Inumiya in this regard. For example, even assuming Chau could properly be combinable with Inumiya, which Applicants dispute, Chau does not teach or suggest at least a method for manufacturing a semiconductor device wherein a structure is formed by stacking a first film and a second film and a step of removing the structure comprises the steps of removing the second film with the first film left unremoved before forming sidewalls (in step (e)) and removing the first film by a wet etching after forming the sidewalls (in step (e)), as recited in Claim 10, as amended.

Accordingly, Applicants submit that Claim 10 is patentable and the rejection of Claim 10 under 35 U.S.C. § 103(a) should be withdrawn. Claims 13-20 depend from Claim 10. For at least the reasons given above with respect to Claim 10, Applicants respectfully request that the rejection of Claims 13-20 under 35 U.S.C. § 103(a) be withdrawn as well.

⁵ Col. 16, lines 1-3 of Inumiya.

⁶ Col. 16, lines 9-17 of Inumiya.

In view of the foregoing remarks, Applicants respectfully submit that each and every one of Claims 10 and 13-20 defines patentable subject matter, and that the application is in condition for allowance. Applicants respectfully request reconsideration and reexamination of this application and timely allowance of the pending claims.

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